

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A head-mounted image display device having an image producing unit (~~2~~) which includes an image display means (~~13a and 13b~~) and a projecting optical system (~~12a, 12b, 14a, and 14b~~) for projecting an image, ~~which is produced by said image display means,~~ on ~~the~~ an observer's eyes, said head-mounted image display device comprising:

a casing body (~~11 and 22~~) in which said image producing unit is incorporated;

a pair of frame supporting members (~~16 and 17~~) fixed to said casing body; and

a pair of frame members (~~25 and 27~~) ~~that is members useful in for wearing the said head-mounted image display device on the a head, and is supported by said frame supporting members,~~ said pair of frame members having respective recesses accepting detachable earphones so that the frame members can pivot freely;

wherein ~~said a~~ a respective pair ~~to the~~ of said frame supporting members has ~~the~~ a same shape.

2. (currently amended) A head-mounted image display device having an image producing unit (2) which includes an image display means (13a and 13b) and a projecting optical system (12a, 12b, 14a, and 14b) for projecting an image, ~~which is produced by said image display means,~~ on ~~the~~ an observer's eyes, said head-mounted image display device ~~HMD~~ comprising:

a casing body (11 and 22) in which said image producing unit is incorporated;

a pair of frame supporting members (16 and 17) fixed to said casing body; and

a pair of frame members (25 and 27) ~~that is members useful in~~ for wearing said head-mounted image display device ~~HMD~~ on ~~the~~ a head, ~~and is~~ supported by said frame supporting members so that ~~the~~ said frame members can pivot freely;

wherein at least one of said pair of frame member has ribs (27a or 25a) formed on ~~the~~ an outer surface thereof ~~which faces outside with said head-mounted image display device worn on the head, said ribs being~~ extended over an effective range in ~~the~~ a longitudinal direction of ~~the~~ at least one of said frame members for guiding an earphone wire.

3. (currently amended) A ~~The~~ head-mounted image display device ~~HMD according to Claim 2, wherein:~~ having an image producing unit which includes an image display means and a projecting optical system for projecting an image produced by said image display means on an observer's eyes, said head-mounted image display device comprising:

a casing body in which said image producing unit is incorporated;

a pair of frame supporting members fixed to said casing body;
and

a pair of frame members for wearing said head-mounted image display device on a head supported by said frame supporting members so that said frame members can pivot freely, at least one of said frame members has ribs formed on an outer surface thereof which faces outside with respect to said head-mounted image display device worn on a head, said ribs being extended over an effective range in a longitudinal direction of said frame member;

wherein said ribs on ~~each~~ at least one of said frame members are a plurality of ribs lined in ~~the~~ a width direction of ~~the~~ at least one of said frame members; ~~and with~~ a groove defined ~~with the~~ on an inner surfaces of said ribs ~~serving as a passage groove for an earphone cord (20 or 21).~~

4. (currently amended) A head-mounted image display device having an image producing unit (2) which includes an image display means (13a and 13b) and an image projecting optical system (12a, 12b, 14a, and 14b) for projecting an image, ~~which is produced by said image display means,~~ on ~~the~~ an observer's eyes, said head-mounted image display device comprising:

a casing body (11 and 22) in which said image producing unit is incorporated;

a pair of frame supporting members (16 and 17) fixed to said casing body; and

a pair of frame members (25 and 27) ~~that is members useful in~~ for wearing said head-mounted image display device HMD on ~~the~~ a head, ~~and is~~ supported by said pair of frame supporting members ~~so that the~~ allowing said frame members ~~can~~ to pivot freely and having respective recesses accepting detachable earphones;

wherein said frame members has facing pins (25b and 25c or 27b and 27c) formed on ~~the~~ an inner surfaces of flanges constituting ~~the~~ a proximal portion thereof ~~that actings~~ as a fulcrum; and said frame supporting member has pin supporting holes (16d and 16j or 17d and 17j), into which said facing pins are fitted, bored therein.

5. (currently amended) The head-mounted image display device HMD according to Claim 4, wherein:

an axis (Y1 or Y2) linking said facing pins formed on each of said frame members is inclined by a predetermined angle relative to a major axis plane defined in ~~the~~ said frame members.

6. (currently amended) The head-mounted image display device according to Claim 4, wherein:

said frame member can be at least one of attached to and or detached from said frame supporting member by elastically deforming said flanges.

7. (currently amended) The head-mounted image display device according to Claim 6, wherein:

~~an~~ L-U-shaped groove ~~(16f or 16g)~~ is formed in one direction along each of said pin supporting holes formed in said frame support members; and, said frame members ~~is~~ moved along said L-U-shaped grooves ~~and then for~~ at least one of attached or and detached.

8. (currently amended) The head-mounted image display device according to Claim 6, wherein:

said frame members ~~is~~ are at least one of attached to ~~or~~ and detached from said frame supporting members while being folded ~~substantially~~ into a portable ~~or~~ and storable state.

9. (currently amended) A head-mounted image display device having an image producing unit (2) which includes an image display means (~~13a and 13b~~) and a projecting optical system (~~12a, 12b, 14a, and 14b~~) for projecting an image, ~~which is~~ produced by said image display means, on ~~the~~ an observer's eyes, said head-mounted image display device comprising:

a casing body (~~11 and 22~~) in which said image producing unit is incorporated;

a pair of frame supporting members (~~16 and 17~~) fixed to said casing body;

a pair of frame members (~~25 and 27~~) ~~that is members useful in~~ for wearing said head-mounted image display device on ~~the~~ a head, ~~and is~~ supported by said pair of frame supporting members so that ~~the~~ said frame members can pivot freely; and

frame spreading magnitude changing devices (~~26 and 28~~) ~~each of which is~~ attached to said frame members so that ~~the~~ said head-mounted image display device can move relative to said frame members, ~~and is used to~~ adjust an angle of pivot by which ~~the~~ said frame members pivote;

wherein said frame spreading magnitude changing devices ~~is~~ moved relative to said frame members so that ~~the~~ said head-mounted image display device will have distal projections thereof inserted into ~~or~~ and withdrawn from gaps between ~~the~~ contacting portions of said frame supporting members and ~~the~~ said contacting portions (~~25i and 25j or 27i and 27j~~) of said frame members, whereby a pivot angle by which said frame members can pivot is adjusted at least in two steps.

10. (currently amended) A head-mounted image display device having an image producing unit (2) which includes an image display means (13a and 13b) and a projecting optical system (12a, 12b, 14a, and 14b) for projecting an image, ~~which is~~ produced by said image display means, on ~~the~~ an observer's eyes, said head-mounted image display device comprising:

a casing body (11 ~~and~~ 22) in which said image producing unit is incorporated;

a pair of frame supporting members (16 ~~and~~ 17) fixed to said casing body;

a pair of frame members (25 ~~and~~ 27) ~~that is members useful in~~ for wearing said head-mounted image display device HMD on ~~the~~ a head, ~~and is~~ supported by said pair of frame supporting members so that ~~the~~ said frame members can pivot freely; and

frame spreading magnitude changing devices (26 ~~and~~ 28) ~~each of which is~~ attached to said frame members ~~so that the~~ allowing said head-mounted image display device can to move relative to said frame members, ~~and is used~~ to adjust a pivot angle by which ~~the~~ said frame members can pivot;

wherein said frame spreading magnitude changing devices ~~is~~ moved relative to said frame members so that ~~the~~ said head-mounted image display device will have distal projections thereof inserted into ~~or~~ and withdrawn from gaps between ~~the~~ contacting portions of said frame supporting members and ~~the~~ said contacting portions (25i ~~and~~ 25j ~~or~~ 27i ~~and~~ 27j) of said frame members, whereby ~~the~~ a pivot angle by which said frame members can pivot is adjusted to ~~be~~ any position ~~that is not~~ lacking a stepwise specified position.

11. (currently amended) The head-mounted image display device HMD according to Claim 9 ~~or~~ 10, wherein:

said frame spreading magnitude changing devices are realized with a pair of members, ~~and respective~~ said pair ~~to the~~ of members ~~is the~~ are a same shape.

12. (currently amended) The head-mounted image display device ~~HMD~~ according to claim 9 ~~or 10~~, wherein:

said frame members has a plurality of ribs ~~(25a or 27a)~~ lined in ~~the~~ a width direction on an outer surface thereof that faces outside with respect to said head-mounted image display device worn on ~~the~~ said head, and said plurality of ribs are extended over an effective range in ~~the~~ a longitudinal direction of ~~the~~ said frame members;

said frame spreading magnitude changing devices ~~is~~ are attached to cover said plurality of ribs; and

a groove defined with said plurality of ribs and having a portion thereof covered by ~~the~~ said frame spreading magnitude changing devices is used as an earphone cord passage groove.

13. (currently amended) A head-mounted image display device having an image producing unit ~~(2)~~ which includes an image display means ~~(13a and 13b)~~ and a projecting optical system ~~(12a, 12b, 14a, and 14b)~~ for projecting an image, ~~which is~~ produced by said image display means, on ~~the~~ an observer's eyes, said head-mounted image display device comprising:

a casing body ~~(11 and 22)~~ in which said image producing unit is incorporated;

a pair of frame supporting members ~~(16 and 17)~~ fixed to said casing body; and

a pair of frame members ~~(25 and 27) that is members useful in~~ for wearing said head-mounted image display device ~~HMD~~ on ~~the~~ a head, ~~and is~~ supported by said frame supporting members ~~so that the~~ allowing said frame supporting members ~~can~~ to pivot freely;

wherein earphone holders ~~(25d, 25e, and 25f or 27d, 27e, and 27f)~~ are formed in ~~the~~ an outside distal recess portion of at least one of said pair of frame members.

14. (currently amended) A ~~The~~ head-mounted image display device ~~HMD according to claim 13, wherein:~~ having an image producing unit which includes an image display means and a projecting optical system for projecting an image produced by said image display means on an observer's eyes, said head-mounted image display device comprising:

a casing body in which said image producing unit is incorporated;

a pair of frame supporting members fixed to said casing body;

and

a pair of frame members for wearing said head-mounted image display device on a head supported by said frame supporting members allowing said frame members to pivot freely;

wherein earphone holders are formed in a distal portion of said frame member that ~~said earphone holder~~ includes an opening, to which ~~the~~ a speaker surface of ~~said an~~ earphone is faced, and claws that clamp ~~the~~ a body of said earphone, ~~that are faced to~~ facing each other in ~~the~~ a horizontal direction, and that ~~can~~ deform elastically.

15. (currently amended) A head-mounted image display device having an image producing unit (2) which includes an image display means (~~13a and 13b~~) and a projecting optical system (~~12a, 12b, 14a, and 14b~~) for projecting an image, ~~which is produced by said image display means,~~ on ~~the~~ an observer's eyes, said head-mounted image display device comprising:

a casing body (~~11 and 22~~) in which said image producing unit is incorporated;

a pair of frame supporting members (~~16 and 17~~) fixed to said casing body; and

a pair of frame members (~~25 and 27~~) ~~that is members useful in for wearing said head-mounted image display device (HMD) on the a head, and is supported by said frame supporting members so that the~~ allowing said frame members can to pivot freely;

wherein said frame members ~~has~~ have a distal portion ~~thereof~~ shifted down by a predetermined dimension with respect to a major axis plane (PI) defined in ~~the~~ a proximal portion of said frame members ~~that actings~~ as a fulcrum.

16. (currently amended) The head-mounted image display device (~~HMD~~) according to Claim 15, wherein:

said paired frame members ~~or~~ and said paired frame supporting members can be replaced with each other.